

10/716, 198 Noted: l.c. 8/29/05

Form 100 (Rev. 11/95)  
To: U.S. Department of Commerce  
PW FORM PAT-1449  
Patent and Trademark Office

Orl. No.  
79-03

INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT

Applicant: Nguyen et al.

Application Serial No. ~~Unknown~~ 10/650,785

Filing Date: August 29, 2003 1724

Examiner: Unknown Art Unit: Unknown

Page 1 of 5

U.S. PATENT DOCUMENTS

Examiner's Initials*	Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	Sub Class	Filing Date (if appropriate)
l.c.	AR 2,642,514	Jun 1953	Herkenhoff	210	675	✓
	BR					
	CR					
	DR					
	ER					
	FR					
	GR					
	HR					

FOREIGN PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS						English Abstract		Translation Readily Available		
		Document Number	Date MM/YYYY	Country	Inventor Name		Enclosed	No	Enclosed	No
	IR									
	JR									
	KR									
	LR									
	MR									
	NR									
	OR									

OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)

l.c.	PR	Bolto et al., "Continuous Ion Exchange Using Magnetic Micro-Resins - The Continuous Sirotherm Desalination Demonstration Plant" AWWA 1985 Int. Conf. Proceedings (1985) 282-288.	✓	-	-	-
l.c.	QR	Hongve, Dag, "Anion Exchange for Removal of Humus from Drinking Water: Calcium Improves the Efficiency of the Process" Wat Res 23:11 (1989) 1451-1454.	✓	-	-	-
l.c.	RR	Chriswell et al., "Comparison of Macroreticular Resin and Activated Carbon as Sorbents" Journal AWWA (December 1977) 669-674.	✓	-	-	-
l.c.	SR	Swinton et al., "Continuous Ion Exchange Using Magnetic Microbeads - Field Trials of a Transportable Pilot Plant" AWWA 10 <sup>th</sup> Federal Convention (1983) 30-1-30-14.	✓	-	-	-
l.c.	TR	Naumczyk et al., "Organics Isolation from Fresh and Drinking Waters by Macroporous Anion-Exchange Resins" Wat. Res. 23:12 (1989) 1593-1597.	✓	-	-	-
l.c.	UR	Symons et al., "The Use of Anion Exchange Resins for the Removal of Natural Organic Matter from Municipal Water" International Water Conference, Proceedings Book (October 1992) 92-120.	✓	-	-	-
l.c.	VR	Gottlieb, Michael C., "The Use of Anion Exchange Resins for the Removal of Natural Organic Matter from Municipal Water" (details undetermined)	✓	-	-	-
l.c.	WR	Odegaard et al., "Removal of Humic Substances by Ion Exchange" Aquatic Humic Resources, American Chemical Society (1989) 813-834.	✓	-	-	-
l.c.	XR	Fu et al., "Mechanistic Interactions of Aquatic Organic Substances with Anion-Exchange Resins" Aquatic Humic Resources, American Chemical Society (1989) 797-811.	✓	-	-	-

Examiner: E. C. Intine

Date Considered: 5/6/04

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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Noted: l.c.

8/29/05

Form U-1449 (modified)  
To: U.S. Department of Commerce  
(PW FORM PAT-1449)  
Patent and Trademark Office

App. Dkt. No. 79-03	Client Ref.
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INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT

Applicant: Nguyen et al.

Application Serial No. ~~Unknown~~ 10/650,785

Filing Date: August 29, 2003

Examiner: ~~Unknown~~ Group Art Unit: ~~Unknown~~ 1724

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U.S. PATENT DOCUMENTS

Examiner's Initials*	Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	Sub Class	Filing Date (if appropriate)
	YR					
	ZR					
	AAR					
	BBR					
	CCR					
	DDR					
	EER					

FOREIGN PATENT DOCUMENTS

	Document Number	Date MM/YYYY	Country	Inventor Name	English Abstract		Translation Readily Available	
					Enclosed	No	Enclosed	No
	FFR							
	GGF							
	HHR							
	IIR							
	JJR							
	KKR							

OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)

l.c.	LLR	Tilsley, Gareth M., "Ion Exchange in the Water Industry - Interaction of Organic Matter with Anion Resins" <i>Chemistry and Industry</i> (March 1978) 142-149.				
l.c.	MMR	Kim et al., "Using Anion Exchange Resins to Remove THM Precursors" <i>Research &amp; Technology Journal AWWA</i> (December 1991) 61-68.				
l.c.	NNR	Brattebo et al., "Ion Exchange for the Removal of Humic Acids in Water Treatment" <i>Wat. Res.</i> 21:9 (1987) 1045-1052.				
l.c.	OOR	Kunin et al., "Removal of Humic Material from Drinking Water by Anion Exchange Resins" <i>Activated Carbon Adsorption of Organics from the Aqueous Phase</i> , Ann Arbor Science, Ann Arbor, Vol. 2 (1980) 425-441.				
l.c.	PPR	Bursill et al., "The Effect of Natural Organics on Water Treatment" <i>AWWA 11<sup>th</sup> Federal Convention</i> (1985) 197-204.				
l.c.	QQR	Harries et al., "Anion Exchange in High Flow-Rate Mixed Beds" <i>Effluent and Water Treatment Journal</i> (April 1984) 131-139.				
l.c.	RRR	Thurman et al., "Separation of Humic Substances and Anionic Surfactants from Ground Water by Selective Adsorption" <i>Aquatic Humic Substances: Influence on Fate and Transformation of Pollutants</i> , American Chemical Society (1989) 107-114.				
l.c.	SSR	van Breemen et al., "The Fate of Fulvic Acids During Water Treatment", <i>Wat. Res.</i> , Vol. 13 (1979) 771-779.				
l.c.	TTR	Rook et al., "Removal of Trihalomethane Precursors from Surface Waters Using Weak Base Resins" <i>Water Technology/Quality Journal AWWA</i> (1979) 520-524.				
l.c.	UUR	Brown et al., "Anion Exchange Resin Performance in the Treatment of River Trent Water" <i>Effluent and Water Treatment Journal</i> (August 1974) 417-422.				

Examiner: I. C. C. F. M. S. Date Considered: 3/6/04

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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Noted: L.C. 8/29/05

Form PTO-1449 (Cushman Version)		To: U.S. Department of Commerce Patent and Trademark Office		Atty. Okt. No.	79-03	Client Ref.	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Applicant: NGUYEN et al.			
				Appl. No.: <u>Unknown</u> <u>10/650,785</u>			
Page <u>3</u> of <u>5</u>				Filing Date: August 29, 2003		<u>1727</u>	
				Examiner: <u>Unknown</u>		Group Art Unit: <u>Unknown</u>	

  

U.S. PATENT DOCUMENTS							
Examiner's Initials		Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	SubClass	Filing Date (if appropriate)
L.C.	AR	5,152,896	10/1992	MAZET et al	210	638	—
L.C.	BR	4,154,675	05/1979	JOWETT et al	210	33	—
L.C.	CR	4,537,683	08/1985	ISACOFF et al	210	667	—
	DR						
	ER						
	FR						
	GR						
	HR						
	IR						
	JR						
	KR						
	LR						
	MR						
	NR						

  

FOREIGN PATENT DOCUMENTS								English Abstract		Translation Ready Available	
		Document Number	Date MM/YYYY	Country	Inventor Name	Class	SubClass	Endosed	No	Endose	No
L.C.	OR	1 559 809	01/1980	Great Britain	KELSEY	—	—	—	—	—	—
L.C.	PR	202,217	06/1955	Australia	COLLIER	—	—	—	—	—	—
L.C.	QR	WO 93/21114	10/1993	PCT Int'l.	DE REUVER et al	—	—	—	—	—	—
L.C.	RR	AU 20648/67	10/1969	Australia	WEISS et al	—	—	—	—	—	—
L.C.	SR	AU 32207/78	07/1979	Australia	DIXON et al	—	—	—	—	—	—
L.C.	TR	522 856 A1	01/1993	Europe	BRADBURY et al	—	—	—	—	—	—
L.C.	UR	AU 43000/93	01/1994	Australia	LAWSON et al	—	—	—	—	—	—
L.C.	VR	AU 52709/79	06/1980	Australia	MURTAGH et al	—	—	—	—	—	—
	WR										
	XR										

  

OTHER (Including in this order: Author, Title, Periodical Name, Date, Pertinent Pages, etc.)					
L.C.	YR	Derwent Abstract Accession No. 86-281075/43, JP 61-204080A, Tokuyama Soda KK, 10 September 1986		—	—
L.C.	ZR	Derwent Abstract Accession No. 92-288534/35, JP 04-197435, Sumitomo Chem. Co Ltd, 17 July 1992		—	—
L.C.	AAR	Derwent Abstract Accession No. 91-255202/35, HU T056044 A, Vilamosenergiaipari ki, 29 July 1991		—	—
	ABR				
	ACR				
	ADR				

  

Examiner	<u>E. C. Martins</u>	Date Considered:	<u>3/6/04</u>
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.			

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Form PTO-1449			10/650,785	
ATTY DOCKET NO. 79-03	SERIAL NO. Not assigned	FILING DATE August 29, 2003		
APPLICANT NGUYEN et al.		GROUP Not assigned 1724		

## U.S. PATENT DOCUMENTS

Exmr. Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
l.c.		6,120,688	09/19/00	Daly et al.	210	650	—
l.c.		6,027,649	02/22/00	Benedek et al.	210	639	—
l.c.		6,020,210	02/01/00	Miltenyi	436	526	—
l.c.		5,900,146	05/04/99	Ballard et al.	210	222	—
l.c.		5,728,302	03/17/98	Connor et al.	210	679	—
l.c.		5,639,377	06/17/97	Banham et al.	210	677	—
l.c.		5,595,666	01/21/97	Kochen et al.	210	679	—
l.c.		5,547,585	08/20/96	Shepherd et al.	210	673	—
l.c.		5,464,530	11/07/95	Stivers	210	141	—
l.c.		5,364,534	11/15/94	Anselme et al.	210	650	—
l.c.		5,248,424	09/28/93	Cote et al.	210	636	—
l.c.	AA	5,236,595	08/1993	Wang et al.	210	669	—
l.c.		5,182,023	01/26/93	O'Connor et al.	210	652	—
l.c.		4,806,244	02/21/89	Guilhem	210	638	—
l.c.	AB	4,724,082	02/1988	Boom	210	679	—
l.c.	AC	4,693,832	09/1987	Hurst	210	754	—
l.c.	AD	4,670,154	06/1987	Carlson et al.	210	189	—
l.c.		4,648,976	03/10/87	Chen	210	678	—
l.c.	AE	4,632,745	12/1986	Guiffrida et al.	204	632	—
l.c.		4,329,225	05/11/82	Davis et al.	210	96.1	—
l.c.		4,314,905	02/09/82	Etzel et al.	210	670	—
l.c.	AF	4,312,956	01/1982	Chong et al.	210	686	—
l.c.		4,279,756	07/21/81	Weiss et al.	210	667	—
l.c.		3,996,131	12/07/76	Conn	210	23	—
l.c.	AG	3,560,378	02/1971	Weiss et al.	210	679	—
l.c.	AH	2,697,724	12/1954	Collier	210	189	—
l.c.	AI	1,190,863	07/1916	Corne et al.	210	521	—
l.c.		2002/0121479	09/09/09	Mueller et al.	210	638	—

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	Document Number	Date	Country	Class	Subclass	Translation Yes/No
l.c.	59-49851	03/22/84	JP	—	—	Abstract
l.c.	60-132609A	07/15/85	JP	—	—	Abstract
l.c.	39 38 245	05/23/91	DE	—	—	In German
l.c.	199534656	03/27/96	AU	C08F 002/44	—	—

EXAMINER

I. C. Int'nc

DATE CONSIDERED

3/6/04

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Sheet 5 of 5

Form PTO-1449			10/650,785		
ATTY DOCKET NO. 79-03	SERIAL NO. Not assigned	FILING DATE August 29, 2003			
APPLICANT NGUYEN et al.		GROUP Not assigned		1724	

l.c.	199941066	09/30/99	AU	C08F 002/44	—	—
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## OTHER PRIOR ART (including Author, Title, Date, Pertinent Pages, etc.)

l.c.		Drikas, M. et al. (2002), "Removal of natural organic matter - a fresh approach," Water Sci Technol.: Water Supply 2(1):71-79
l.c.		Eldridge, R.J. (1995), "Moving-Bed Ion Exchange with Magnetic Resins," Rev. Chem. Eng. 11(3):185-228

EXAMINER	I. Cintas	DATE CONSIDERED	3/6/04
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			